MEMORANDUM

SUBJECT: Comments on the Human Health Risk Assessment for Area of Concern Five (AOC5), Falcon Refinery Superfund Site (Ingleside, TX)

FROM: Kenneth Shewmake, USEPA Ecological Risk Assessor

TO: Brian Mueller, USEPA Remedial Project Manager

DATE: April 24, 2014

General Comments:

1. The conclusions made in this risk assessment are supported by the data presented. The risk assessment could be improved by showing a comparison to background sediment concentrations, and by using fish tissue samples to evaluate risk from fish ingestion. A comparison to ARAR and TBC values is also needed.

2. The evaluation of risk from fish ingestion showed a slight non-carcinogenic risk from selenium. This risk is likely overstated because of the use of max values, the assumption that 100% of fish consumed came from AOC5, and the assumption that fish were exposed to COPCs coming from AOC5 100 percent of the time. It is likely that a large fish suitable for consumption would be utilizing an area much larger than AOC5. This could be confirmed if fish tissue samples were collected, but this may not be needed if more realistic values are used in fish consumption calculations.

3. Please provide a better description of the watermen exposure scenario and exposure pathways that are evaluated under this receptor scenario.

Specific Comments:

4. **Data tables 1, 2 and 3:** These tables show NA for all contaminants in the ARAR/ TBC columns. State water quality standards should be considered as ARARs and TX RBELsw values are considered TBC values.

5. **Page 24, Fish Ingestion rate:** The values listed for fish ingestion rate do not seem to match the total fish ingestion rate from the exposure factors handbook, or the default 17.5g/person/day rate established by TCEQ. The rate provided is probably acceptable due to conservative assumptions made in modeling fish tissue concentration.

6. **Section 2.1.3 and Table:** The footnotes shown in table one list the source of screening toxicity values as the Maryland Dept of the Environment. Section 2.1.3 says values are from the RSL tables. Footnote 5 in table one says ARAR values

are from RSL tables. This needs to be revised with correct source of screening values and ARARs.

7. **Section 2.1.3:** This section discusses groundwater screening values. The groundwater exposure pathway was not evaluated and screening values were not presented. This needs to be revised.